

NID Application

Eligibility and General Project Information Tab

A.3: Project Description

NID Service Area: Within NID's service area, most of the water supply begins as snow. As the snowpack melts, seven mountain division reservoirs—Jackson Meadows Reservoir, Milton Reservoir, French Lake, Faucherie Lake, Jackson Lake, Sawmill Lake, and Bowman Lake—capture the runoff. Water captured at Jackson Meadows Reservoir and Milton Reservoir flows either into the Middle Yuba River or through the Milton-Bowman Diversion Tunnel to Bowman Lake. Water captured at Jackson Lake, French Lake, Faucherie Lake, and Sawmill Lake also flows into Bowman Lake via existing creeks.

From Bowman Lake, water flows either into Canyon Creek or through the Bowman-Spaulding Canal, via Fuller Lake, to Pacific Gas & Electric's (PG&E) Lake Spaulding. It is then routed down the South Yuba/Chalk Bluff Canal to Scotts Flat Reservoir and the Nevada City–Grass Valley area (Deer Creek watershed), or down the PG&E Drum Canal (which flows adjacent to the Bear River) and into the Drum Forebay where it is used to generate power for NID and PG&E before supplying water to customers in southern Nevada and Placer Counties. Figure 1 Existing High Mountain Water Distribution illustrates the existing flow within the NID water supply network that originates in the mountain reservoirs and travels downstream to feed the Bear River, and also illustrates other water conveyances.

Project Overview and Study Area: NID is proposing the Centennial Reservoir to be constructed between the existing Rollins Dam and Combie Reservoir. Both reservoirs are located just within the eastern boundary of NID's service area within both southern Nevada County and western Placer County (see Figure 2 Project Location and Vicinity). The proposed reservoir would extend upriver from just above the existing Combie Reservoir to a point west of the town of Colfax, about 2 miles downstream of the existing Rollins Dam. The Project Area would occupy about 2,126 acres along a 7-mile stretch of the Bear River between the existing Rollins and Combie Reservoirs.

Project Description: The Proposed Project involves construction of a new 110,000-acre-foot reservoir, a new 6.2-mile-long raw water pipe with hydrants, low-impact recreation facilities, and appurtenant facilities and features. A new Bear River bridge crossing the Bear River to replace the existing Dog Bar Road bridge crossing is also included as part of the Proposed Project. The Proposed Project includes the following features/components:

- **New Reservoir:** The Proposed Project involves the construction of a new 110,000 acre-foot reservoir. The reservoir plan is shown in Figure 6 Proposed Centennial Reservoir Plan. The reservoir would be located between Combie Reservoir (downstream) and Rollins Reservoir (upstream), as shown on Figure 7 Proposed Centennial Reservoir Aerial Map. The reservoir capacity would be 110,000 acre-feet at a water depth of 255 feet and at a spillway crest elevation of 1,855 feet above mean seal level (amsl). Dead storage, or storage below the lowest outlet level, would be at an elevation of 1,620 feet amsl. The overall length of the reservoir would extend about 6.25 miles upstream of the dam, and the maximum width across the reservoir would be about 1 mile.

- **New raw water pump station, storage tank, extraction wells/pump intake area, and raw water pipeline:** The Proposed Project involves constructing a new raw water pump station, a 1 million-gallon storage tank, a pump sump/intake structure, and about 32,500 feet (about 6.2 miles) of raw water pipeline. Figure 8 Raw Water Construction Site Layout Conceptual Plan provides a map of the permanent and temporary construction features related to new raw water facilities.
- **Bear River Flow Management Plan:** A preliminary concept for the Bear River diversion and flow management during construction is illustrated in profile in Figures 9 and 10 Conceptual Construction Sequence. These figures show the profile of the RCC dam along the axis of the dam and the sequence of the diversion concept, which involves constructing a temporary reinforced concrete box culvert aligned across the dam footprint and through which river flow would be diverted for the duration of construction.
- **Relocation and Reconstruction of Dog Bar Road Bridge:** Dog Bar Road and the associated bridge would be relocated about 2,600 feet south of the existing road and bridge. The road would connect Magnolia Road on the Nevada County side to Placer Hills Road on the Placer County side. The bridge would be a three-span, cast-in-place, segmental concrete box girder bridge. The bridge would be about 1,200 feet long and would provide about 68 feet of clearance over the full reservoir (see Figure 11 Proposed Lower Reservoir Bridge Crossing and Figure 12 Proposed Bridge and Dam Locations). The road and bridge would be on a new alignment; the existing road and bridge would remain in service during construction. The existing bridge superstructure would be removed after the new road and bridge are in service.
- **Recreational Features:** A suite of recreational features have been included in the Proposed Project (see Figure 13 Overview of Proposed Recreation Features), including:
 - **Reservoir Boating and Use Regulations and Policies:** NID proposes to regulate the reservoir boating and uses through county ordinances as a means to provide safe boating opportunities, minimize impacts to biological resources, minimize human-caused fire risk, and minimize noise-related impacts to the neighboring residential communities.
 - **Centennial Recreation Area:** NID would construct a recreation area consisting of a boat ramp, parking area, marina, campground, designated swim beach, and general store. The recreation area would encompass a total of 25 acres of NID land on the Nevada County side of the reservoir in the southwest part of the reservoir near the dam (quarry area for the Project construction). The recreation area would be accessed off Magnolia Road, where a facility identification sign would be installed that identifies the recreation area and the available facilities, opportunities, and services. A recreation area entrance road would be constructed as part of the larger Project construction activities. The recreation area would consist of two separate complexes—a day-use complex and a camping complex—both accessed off the same primary recreation area entrance road.

- **Day-use Complex:** The day-use complex would consist of a parking area, boat ramp, marina, swim beach, and general store on about 10 acres of NID land.
- **Camping Complex:** On the peninsula south of the day-use complex, NID would construct a campground on about 15 acres of NID land. The campground would be accessed via an access road off the main recreation area entrance road after the entrance station.
- **Magnolia Ranch Birding Area (Nevada County):** NID would develop a birding area on 0.5 acre of NID land in the Magnolia Ranch area on the Nevada County side of the reservoir just upstream of the main recreation area. The facility would consist of an entrance road, parking area, and multiple viewing platforms.
- **Dog Bar Bridge Day-use Area (Placer County):** NID would develop a day-use area on 2 acres of NID land at 1,880 feet amsl on a south-facing peninsula where the proposed Dog Bar Road bridge would connect to the Placer County side of the reservoir at the southeast part of the reservoir. The facility would consist of a picnic area, parking area, restroom building, and shoreline access area.
- **Recreational Trail:** NID would construct a 3-mile-long, narrow-surface recreational trail between the high-water line and 1,950 feet amsl. The trail would start on the Nevada County side at the dam and would traverse upstream through the proposed boat ramp entrance road and/or parking area to the proposed Dog Bar Road bridge, go across the Dog Bar Road bridge, and terminate at the Dog Bar Road bridge picnic area on the Placer County side.
- **Trailheads:** The trail would have a total of three formal trailheads with parking areas. These include the two developed facilities described above (at the Centennial Recreation Area boat ramp parking area and at the Dog Bar day-use area parking area). In addition, NID would construct an additional trailhead parking area on the Nevada County side of the Dog Bar Road bridge.

Please refer to Item 4, Line (i) below for a complete list of figures included with this application.

The following list of supporting maps, which are referenced in this attachment, are included in Attachment A.4 Project Description Support.

Figures referenced above in Line (h) include the following:

- Figure 1 Existing High Mountain Water Distribution
- Figure 2 Project Location and Vicinity
- Figure 3 Project Study Area
- Figure 4 Proposed Centennial Reservoir Plan
- Figure 5 Proposed Centennial Reservoir Aerial Map
- Figure 6 Raw Water Construction Site Layout Conceptual Plan
- Figure 7 Conceptual Construction Sequence 1
- Figure 8 Conceptual Construction Sequence 2
- Figure 9 Proposed Lower Reservoir Bridge Crossing

- Figure 10 Proposed Bridge and Dam Locations
- Figure 11 Overview of Proposed Recreation Features

Figures 3 and 11 show the location of the Proposed Project benefits including the water supply reservoir and recreational facilities. Additional figures showing the ecosystem benefits of the Proposed Project are included in the Physical Benefits Tab, Ecosystem Priorities Worksheets.